

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): Process for preparing a composite material comprising an electrode active compound of formula $\text{LiFePO}_4 \text{ A}_a\text{D}_d\text{M}_m\text{Z}_z\text{O}_o\text{N}_n\text{F}_f$ in which:

~~—A is an alkali metal,~~
~~—D is chosen from alkaline earth metals and elements of column III of the Periodic Table of Elements, with the exclusion of B,~~
~~—M is a transition metal or a mixture of transition metals,~~
~~—Z is a non metal chosen from S, Se, P, As, Si, Ge, Sn and B,~~
~~—O is oxygen, N is nitrogen and F is fluorine,~~
~~—a, d, m, z, o, n and f are real numbers greater than or equal to 0 and are chosen so as to ensure electroneutrality;~~

~~and an electronically conducting compound[[;]], the process consisting essentially of :
in which a homogeneous mixed precursor containing all the elements A, D, M, Z, O, N and F forming the electrode active compound and also one or more organic and/or organometallic compounds are thermally decomposed, in a short period of time of 1 hour or less, so as to obtain the composite material~~

forming a homogeneous mixed precursor containing all the elements Li, Fe, P, and O, and one or more organic and/or organometallic compounds; and
thermally decomposing the precursor in one hour or less to obtain the composite material.

Claim 2 (Previously Presented): Process according to Claim 1, in which said organic and/or organometallic compound(s) comprise a predominant atomic proportion of carbon.

Claim 3 (Canceled):

Claim 4 (Canceled):

Claim 5 (Canceled):

Claim 6 (Canceled):

Claim 7 (Previously Presented): Process according to Claim 1, in which the final percentage by mass of electronically conducting compound is from 0.1% to 55%.

Claim 8 (Previously Presented): Process according to Claim 1, in which the thermal decomposition of the homogeneous mixed precursor is carried out under vacuum.

Claim 9 (Previously Presented): Process according to Claim 1, in which the thermal decomposition of the homogeneous mixed precursor is carried out in a controlled atmosphere.

Claim 10 (Original): Process according to Claim 9, in which the controlled atmosphere is an inert or slightly reducing atmosphere.

Claim 11 (Previously Presented): Process according to Claim 1, in which the thermal decomposition of the homogeneous mixed precursor is carried out at a temperature of less than 900°C.

Claim 12 (Previously Presented): Process according to Claim 11, in which the thermal decomposition is also carried out at a temperature above 200°C.

Claim 13 (Canceled).

Claim 14 (Previously Presented): Process according to Claim 1, in which the thermal decomposition is carried out over a duration of 5 minutes to 1 hour.

Claim 15 (Canceled):

Claim 16 (Currently Amended): Process according to Claim [[15]] 1, in which the respective proportions and the respective compositions of said compound(s) containing one or more element(s) chosen from the elements A, D, M, Z, O, N and F elements and of said organic and/or organometallic, compound(s), which are thermally decomposable, are chosen so as to observe the proportions of the elements A, D, M, Z, O, N and F, and of the at least one electronically conducting compound, in the final composite material.

Claim 17 (Currently Amended): Process according to Claim [[16]] 1, in which the bringing into contact precursor formation is carried out in solution optionally having one or more phases in fine suspension.

Claim 18 (Currently Amended): Process according to Claim [[15]] 1, in which the bringing into contact is carried out by means of precursor formation comprises trituration.

Claim 19 (Currently Amended): Process according to Claim [[15]] 1, in which the precursor formation comprises drying the precursor prior to thermal decomposition, at the end of the bringing into contact, the mixture obtained is dried.

Claim 20 (Currently Amended): Process according to Claim 17, in which the homogeneous mixed precursor is prepared by forming a solution of ions containing the elements to be associated in the compound LiFePO₄ A_aD_dM_mZ_zO_eN_nF_f and of one or more organic or organometallic compounds capable of thermally decomposing, which are and by then very rapidly concentrating said solution so as to fix it and to dry it.

Claim 21 (Currently Amended): Process according to Claim 17, in which the homogeneous mixed precursor is prepared by forming a solution of ions containing the elements to be associated in the compound LiFePO₄ A_aD_dM_mZ_zO_eN_nF_f and of one or more organic or organometallic, compounds capable of thermally decomposing, and by adding a polyol or a polyamine to said solution in such a way as to carry out a polymerization so as to form a gel, and by drying said gel.

Claim 22 (Currently Amended): Process according to Claim 20, in which said organic or organometallic compound(s) capable of thermally decomposing, is (are) chosen from selected from the group consisting of organic acids containing two acid functions or more, alcohol acids, amino acids, ketone acids, acids ~~which are more complicated~~ bearing two or more acid functions and other alcohol, amine or carbonyl functions, and mixtures thereof.

Claim 23 (Previously Presented): Process according to Claim 21, in which said polyol is chosen from glycols.

Claim 24 (Currently Amended): Process according to Claim 17, in which the homogeneous mixed precursor is prepared by forming a solution of ions containing the elements to be associated in the compound $\text{LiFePO}_4 \text{A}_a\text{D}_d\text{M}_m\text{Z}_z\text{O}_e\text{N}_n\text{F}_f$, and by adding to this solution one or more water-soluble gelling organic compounds, in order to form an organic gel comprising said ions, and then by drying said gel.

Claim 25 (Previously Presented): Process according to Claim 24, in which said gelling organic compound(s) is (are) chosen from (meth)acrylamides, (meth)acrylates and polymerizable carbohydrates.

Claim 26 (Currently Amended): Process according to Claim 17, in which the homogeneous mixed precursor is prepared by direct sol-gel polymerization between an alkoxide of the element Z, and a generally complexing oxoanion, in a solution of ions containing the elements Li and Fe A, D and M to be associated in the compound $\text{LiFePO}_4 \text{A}_a\text{D}_d\text{M}_m\text{Z}_z\text{O}_e\text{N}_n\text{F}_f$ such that Li and Fe the metals A, D and M are trapped in the network thus formed, and then by drying.

Claim 27 (Previously Presented): Process according to Claim 1, in which the composite material is in the form of a light ash consisting of very fine grains of between 100 and 5000 \AA in size.

Claim 28 (Original): Process according to Claim 27, in which the composite material also has a specific surface area of from 10 to 50 m^2/g .

Claim 29 (Previously Presented): Process according to Claim 1, wherein the electronically conducting compound is carbon.

Claim 30 (Previously Presented): Process according to Claim 16, wherein the electronically conducting compound is carbon.

Claim 31 (Previously Presented): Process according to Claim 20, wherein the organic or organometallic compound(s) is (are) complexing,

Claim 32 (Previously Presented): Process according to Claim 21, wherein the organic or organometallic compound(s) is (are) complexing,

Claim 33 (Previously Presented): Process according to Claim 22, wherein the organic or organometallic compound(s) is (are) complexing,